MiEnergy Cooperative

Headquartered in beautiful Rushford, MN
Flood recovery

• Groundbreaking ceremony November 2007

• First day of business September 29, 2008.
The Basics

Merged January 1, 2017

76 total employees
  - 33 lineworkers

43 substations

5,500 miles of line

22,900 meters/18,800 members

Offices in Rushford & Cresco; Outposts in Caledonia, Harmony & Spring Valley

11 wholesale cities

Average 4 members per mile of distribution line
Electric Industry Changes

**Advanced Metering Infrastructure (AMI)**
- Hourly meter data communicated back to our offices
- Special time-of-use energy rate options – Real time

**Outage Management System (OMS)**
- Instant notification from the AMI of outages
- Lineman operate with iPads/OMS

**Supervisory Control & Data Acquisition (SCADA)**
- Computer control system to monitor system data
- Electronic system device operation (breakers/regulators)
Electric Industry Changes

Energy Management
- System operation to control home appliance for 'peak shaving'
- Commercial & industrial energy management

GIS Mapping Technology
- 5,500 miles of electric distribution line and all cooperative infrastructure - GPS point.

Mobile Workforce Management
- Automatic Vehicle Locating (AVL)
Electric Industry Changes

Future Continues to Evolve

- Electric vehicles and charging networks
- Smart home technology
- Distributed generation/solar
  - (650 members systems)
- Residential battery storage
  - National pilot program
Data & Information Management

Need to communicate with 43 substations
Internet Connectivity/Network Design

- Offices were communicating via the high-speed microwave link and fiber backbone
- Utilized cellular VPN connections
  - Expensive & data limitations
Broadband
Partnerships

• Spring Grove Communications local telephone cooperative.

• Mabel Cooperative Telephone Company local telephone cooperative.

• Spring Grove Communications, Mabel Cooperative Telephone and MiEnergy own Harmony Telephone Company.

• Natural partnership with MiEnergy Cooperative.
• Formed in 1945.

• Purchased in 2006 by Mabel Cooperative Telephone Company and Spring Grove Communications. In 2018, MiEnergy joined this partnership.

• Serves approximately 100 square miles in southeastern Minnesota and a small area of northeastern Iowa

• Began providing fixed wireless broadband service in 2013.
MiBroadband Wireless Tower Sites
Advanced Metering Infrastructure (AMI)

Build an AMI/SCADA communications network with ample amount of expandability while providing dependable, two-way communications reaching 100% of our endpoints in Minnesota and Iowa.
Progressive

$5.4 Million ReConnect Award
$9.7 Million ReConnect 2 Award
$715,000 IA CARES Grant
$1.2 Million MN Border-to-Border Broadband Grant
Minnesota’s electric distribution cooperatives
44 rural electric distribution cooperatives in Minnesota

6 generation & transmission cooperatives in Minnesota
  ◦ Several already have existing fiber in overhead static wire

Only 4 electric cooperatives involved in retail broadband

Cyber security protection
  ◦ Ownership of the fiber is critical by the electric cooperative
  ◦ Opportunity to lease fiber strands?

Cooperatives cannot lease the fiber to a 3rd party unless it has a new easement permitting retail fiber usage in the cooperative’s existing ROW easement.
Thank You